

NUCLEAR MATERIAL STABILIZATION AND DISPOSITION (RL-0011)

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Preparing the
Containment Tent over
the 241-Z D-4 Vault to
Support the Vault
Decontamination and
Characterization Work



OVERVIEW

This section addresses work in Project Baseline Summary RL-0011, *Nuclear Material Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of April 2004.

NOTABLE ACCOMPLISHMENTS

DISPOSITION SPECIAL NUCLEAR MATERIAL (SNM)

Construction has begun on 14 Interim Storage Vaults in the yard area, 5 of which will be used to temporarily store fuel from 5 Interim Storage Casks (ISCs) before returning the empty ISCs to the Fast Flux Test Facility.

SNM STABILIZATION

Through April 26, 2004, 196 of the 358 3013 outer containers identified as having excess weld porosity have been opened and repackaged. This repackaging effort is anticipated to complete in May 2004 as planned.

DISPOSITION THE PLUTONIUM FINISHING PLANT (PFP) FACILITY

Material removal activities from glove boxes MT-3 and MT-1 in the 236-Z facility; glove boxes HA-7A, HA-21I, HA-21A, and HA-14; and vacuum line 9B-HC1 in the 234-5Z facility are under way to support an early completion of the third increment of ten for Legacy Holdup Removal which is scheduled for a late June 2004 completion.

Field walk-downs were completed ahead of schedule, in late April, to identify end point criteria for the dismantlement of seven Transition Support Buildings later this fiscal year. Site mobilization of equipment, storage and consumables has begun to support the demolition.

The Activity-Based Management Review for the first phase of the 241-Z transition work was approved on April 27, 2004.

The 241-Z and HA-20MB Resource Conservation and Recovery Act Closure Plans were issued April 7, 2004, for a 45-day public review period. These closure plans identify how the 241-Z facility will be closed, the cleanup standards, activities necessary to achieve the cleanup standards, and the methods used to ensure the cleanup standards are satisfied.

FH comments have been incorporated into the Removal Action Work Plan (RAWP) for the 232-Z facility. The plan has been submitted for final review to RL and the regulators. All external comments are expected by the end of May. The RAWP addresses management of the project under the Comprehensive Environmental Response, Compensation and Liability Act and must be approved by RL and the lead regulator (the State of Washington Department of Ecology). It includes the Air Monitoring Plan, Waste Management Plan, Quality Assurance Project Plan, and site specific Health and Safety Plan.

With RL approval of the Justification for Continued Operations for 232-Z transition, and concurrence from the State of Washington Department of Health, non-fissile work was resumed in mid-April which allowed for the removal of asbestos from the 232-Z facility change room.

NOTABLE ACCOMPLISHMENTS, CONTINUED

The PFP Non-Destructive Analysis (NDA) Management Plan was issued on April 26, 2004. This plan describes how the NDA group functions and interfaces, defines customer needs, and describes the Data Quality Objective being used.

ISSUES

SNM De-inventory Delay: RL's direction to delay the PFP SNM de-inventory will require a major revision of the PFP Closure Project baseline, including Performance Incentive objectives.

FY 2004 FH FUNDS VS. SPEND FORECAST (\$000)

	FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
Nuclear Materials Stabilization & Disposition	\$ 163,405	\$ 152,110	\$ 11,295

The Fiscal Year Spend Forecast reflects the RL-directed two-year delay in SNM de-inventory as well as the disposition of fuel stored at PFP. The current forecast indicates the following factors contributed to the forecasted positive funding variance: delayed staff ramp-up, delayed use of consumables supporting deactivation and decommissioning (D&D), a delay in issuing subcontracts, and the corresponding decrease in overheads.

FY 2004 SCHEDULE/COST PERFORMANCE (\$K)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Nuclear Materials Stabilization & Disposition	95,985	76,139	76,178	-19,846	-21%	-39	0%	172,859

Numbers are rounded to the nearest \$K and include the closure services allocation.

Schedule Performance (-\$19,846K/-21%): Primary contributors to the negative schedule variance are:

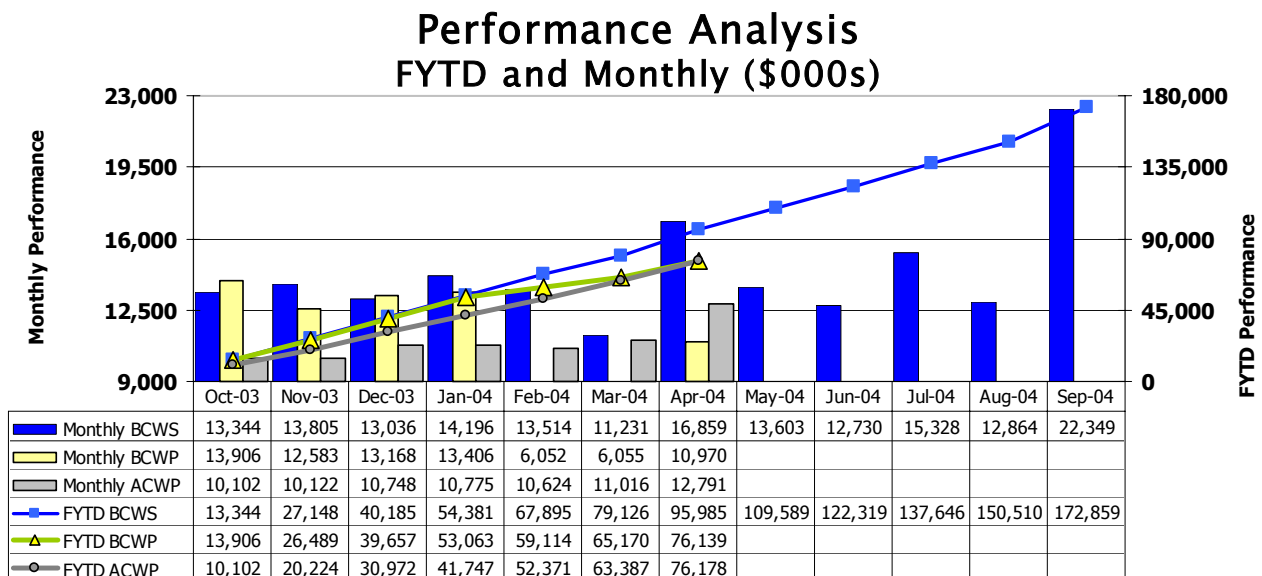
- Delayed shipment of SNM to Savannah River and associated procurement of shipping containers due to unavailability of safe and secure transports and approval of the Record of Decision for shipment (-\$5M);
- Delayed solid waste disposal due to slowed D&D work (-\$1M);
- Delay in staff ramp-up and Tank D-5 liquid waste transfers which impact D&D work along with technical issues on portable NDA plutonium holdup measurements, delayed procurements/materials (e.g., robotics for 236-Z canyon floor, lack of consumables for D&D) and document safety analysis (DSA) implementation issues which further impact D&D activities (-\$9.5M);
- Difficulties associated with 232-Z deactivation (-\$1.6M);
- Transition Operation Support earned value apportioned to delayed D&D work scope (-\$2M); and
- Safety Analysis Implementation behind schedule (-\$0.5M).

The baseline adjustment is currently being prepared to revise the baseline consistent with the directed delay in SNM de-inventory (including changes in the fuel de-inventory path forward), staffing delays and directed funding adjustments.

FY 2004 SCHEDULE/COST PERFORMANCE, CONTINUED

Cost Variance (-\$39K/0%): The slight unfavorable cost variance is the result of several favorable variances offsite by a noted unfavorable variance in D&D work. Specifically, favorable variances occurred from the early completion of the plutonium stabilization activities (\$2.5M); reduced dosimetry and medical costs due to delay in staff ramp-up (\$.4M); reduced labor cost due to Senior Management transfers (\$.2M); and revenue and work transfers in Closure Services (\$.6M). These favorable variances were off-set by increased costs associated with plutonium shipping operations (-\$1M), apportioned-effort work scope in D&D project management, and increased D&D costs resulting from portable NDA plutonium holdup measurement issues and DSA implementation impacting D&D progress (-\$2.8M) at PFP.

Improvements in plutonium shipping operations and packaging shipping containers are expected as routine packaging operations are established and once authorization to ship is obtained. Slowed progress in D&D activities will recover upon resolution of the portable NDA plutonium holdup measurement issue and DSA implementation.



MILESTONE ACHIEVEMENT

Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comments
Complete Stabilization and Packaging of Polycubes	DNFSB	3/31/03	2/28/03		Complete
Submit Facility End Point Criteria Document to Ecology	TPA	9/30/03	9/30/03		Complete
Submit to Ecology a PFP Residual Chemical Hazards Assessment	TPA	12/31/02	12/27/02		Complete
Submit Closure Plan for 241-Z Waste Treatment Facility TSD Unit to Ecology	TPA	7/31/03	7/25/03		Complete
Completion of all Plutonium (Pu) Stabilization & Packaging	PI	2/18/04	2/12/04		Complete
Complete Repackaging of PFP Residues and Ship to Central Waste Complex (CWC)	TPA	4/30/04	3/11/04		Complete
Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	TPA	6/30/05		6/30/05	On Schedule
Special Nuclear Material Transferred to Savannah River Site or DOE Approved Interim Storage	PI	9/30/05		9/30/07	DOE has notified FH that the current shipping schedule will not be met.
Legacy Pu Holdup Removed & Dispositioned	PI	9/30/05		9/30/05	On Schedule
Complete 100% of Legacy Pu Holdup Removal & Disposition	TPA	9/30/06		9/30/06	On Schedule
Complete Transition & Dismantlement of the 232-Z Bldg Incinerator	TPA	9/30/06		9/30/06	On Schedule
Protected Area Eliminated	PI	12/31/05		12/31/07	Protected Area elimination will not be met due to delayed de-inventory
PFP Facilities (61 Buildings) Ready For Demolition	PI	9/30/06		TBD	Demo ready of 61 buildings will not be met. Two year SNM de-inventory delay, and funding reduction has necessitated a re-sequencing of D&D work scope.